Editor's Note

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The publication of this issue of Tulane Studies in Zoology and Botany (TSZB) marks the end of an era and the passing of a legendary figure in the biology of the southeast region of North America. This is final print issue of TSZB. The print version has finally succumbed to the challenges we have faced sustaining funding for printing and mailing this predominantly exchange-based periodical. With this issue, we are changing the format of TSZB to 'Open Access'. The contents will be available for download free-of-charge via the Internet. We will continue selling reprints and complete back issues to anyone wishing to have these until our supply runs out. Individuals and institutions interested in obtaining back issues should visit: http://www.museum.tulane.edu/publications/tszbback.shtml. PDF's of scanned back issues of Tulane Studies in Zoology and TSZB can also be obtained without cost from the Biodiversity Heritage Library (http://www.biodiversitylibrary.org/title/5361).

This issue of TSZB also contains what is very likely to be the final lead-authored publication of Dr. Royal D. Suttkus, who passed away on 28 December 2009, less than six months shy of his 90th birthday. Royal Suttkus, or "Sut", as he was affectionately known to family and friends, holds a special place in southeastern ichthyology, having described a significant component of the region's ichthyofauna. His insatiable appetite and great skill at field collecting are legendary. The collections he amassed over a professional career spanning 65 years - primarily fishes, but also important collections of plants, aquatic invertebrates, amphibians and reptiles, and mammals – constitute one of the most comprehensive records of regional biodiversity in existence and will serve organismal research for many decades to come. The following account of his remarkable life is excerpted from an obituary published in the journal *Copeia* in May 2010.

Suttkus was born 11 May 1920 in Ballville, Ohio, the third of four children of John Albright Suttkus and Myna Louise Schultz Suttkus. Royal, as he was called as a boy, developed a love for natural history in early childhood. He hunted rabbits and pheasant with Brother Merlin, and enjoyed birding, gathering wildflowers and collecting insects. He taught his friends about horned worms and hawk moths. He fished with his father below the hydrodam on the Sandusky River, catching white and black crappie. He caught small fish with his hands while searching for crayfish among slabs of rock. He recalls seeing redhorse suckers spawning along the Sandusky River and shooting an Egyptian goose with a bow and arrow along the Grand River in Michigan. He read Charles Darwin's *On the Origin of Species* while in high school.

Suttkus graduated from Fremont Ross High School in 1937 then worked in a celery garden for 2 years to earn money for college. In the fall of 1939, he enrolled in Michigan State University, eventually majoring in Wildlife Management. He joined the R.O.T.C. at Michigan State, where he trained in field artillery. After earning his bachelor's degree, he enrolled in Officer's Commission School. When he finished his training, he was promoted to Second Lieutenant and attached to the 686th Field Artillery, an all African American battalion. His battalion went to South Wales in 1944

then crossed the English Channel to France, where his training was put to immediate use in the Battle of the Bulge.

After his discharge from the Army in June 1946, he was accepted to the graduate program in the School of Agriculture at Cornell University, where he studied under Edward Raney. He met his bride to be, Jeanne Elizabeth Robinson, while working for New York Fish and Game on Saranac Lake. They were married in December 1947. Son, Jayson, the first of three children, was born in Ithaca, NY, two years later in January 1949 (Fig. 1).

Figure 1. Suttkus pictured with wife Jeanne Robinson Suttkus, and kids Jayson (far left), Ramona (middle) and Jan (right.)

Suttkus accepted a faculty position in Zoology at Tulane University in the fall of 1950. Daughter, Ramona, was born in New Orleans in April 1951; Daughter, Jan, was born in September 1954. Suttkus devoted his career at Tulane to collection building and studies of the taxonomy and natural history of specimens he collected. From 1963 to 1968, he was Principal Investigator of the NIH-funded, Environmental Biology Training Program, a summer program in which students received lectures and training while in the field collecting and preparing specimens of plants, invertebrates, fishes, herps, birds, mammals, and fossils.

In 1963, Suttkus started a consulting business with his long-time Tulane colleague, the late Gerald E. Gunning. Their first contract was a survey of ten stations on the Pearl River near Bogalusa, Louisiana for a pulp and paper mill. The survey started with monthly samples in April 1963, then switched to quarterly (seasonal) collections a year later (Fig. 2). A quarterly survey of eight stations on the upper Pearl River was initiated in 1973. Suttkus continued both surveys until 2005. A survey of the lower Alabama River started in 1969 and continued until 2000. A survey of the Red River near Alexandria, LA was established in 1976 and ended in 2002. Shorter–term surveys were conducted on the Perdido Bay System, Sabine River, Mississippi River and Calcasieu River. All of the collecting on these surveys was supervised by Suttkus and involved standardized gear, technique and environmental sampling. Suttkus also collected marine organisms during oceanic cruises in the Gulf of Mexico, Indian Ocean, off the coasts of Peru and Venezuela, and around the Galapagos Islands. All of the specimens collected (fishes and any amphibians, reptiles, mussels, and decapods that happened to be collected) were preserved and ultimately cataloged into Tulane's natural history collections.

Suttkus published an impressive body of scholarly work during his career. His most recent cv lists 125 papers, 54 of which deal directly with fish taxonomy and systematics, 41 report on various aspects of fish life history and/or distribution, and 27 are reports based on his fish monitoring surveys. As a sign of his taxonomic breadth, 11 of

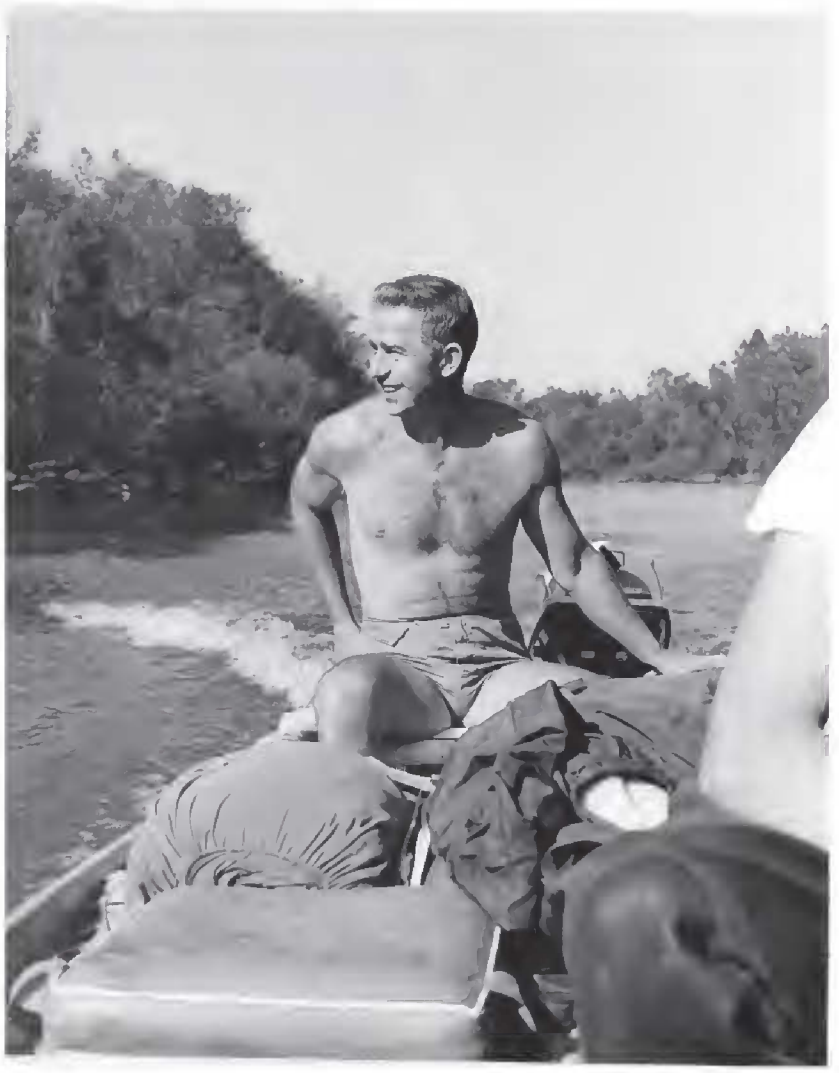

Figure 2. Suttkus surveying the Pearl River in the 1960's.

his papers deal with mammals, three deal with crayfishes, and one deals with freshwater mussels. Among his systematic and taxonomic contributions are descriptions of 35 new fish species, 29 of which are freshwater species largely confined to the southeastern United States. It is in the southeastern U.S. that his contributions to knowledge of biology have been greatest. It is hard to collect anywhere in the southeast without encountering at least one of his species. Moreover, his taxonomic treatments are among the most thorough in the profession in terms of numbers of specimens examined.

Suttkus directed 24 graduate students during his career (10 M.S., 14 Ph.D.), including important contributors to ichthyology such as Rudolph J. Miller (M.S. 1958), John S. Ramsey (Ph.D. 1965), James E. Thomerson (Ph.D. 1965), Clyde D. Barbour (Ph.D. 1966), Michael D. Dahlberg (Ph.D. 1966), Kenneth Relyea (Ph.D. 1967), Roy J. Irwin (Ph.D. 1970), Glenn H. Clemmer (Ph.D. 1971), Anthony Laska (M.S. 1970; Ph.D. 1973), Robert C. Cashner (Ph.D. 1974), the late Salvador Contreras-Balderas (M.S., 1966; Ph.D. 1975), John H. Caruso (Ph.D. 1977), J. Van Connor (Ph.D. 1977), and the late Bruce A. Thompson (Ph.D. 1977).

Suttkus's greatest and most lasting contributions to southeastern biology are his collections. He built the Tulane fish collection on a foundation of just two mounted fish specimens left over from an early exhibit museum. By 1968, the fish collection had grown to a size of just over two million specimens, overfilling its space on the main Tulane campus. Later that year, the fish collection, along with birds, mammals and vertebrate fossil collections left over from the early exhibit museum, plus the thousands of specimens of plants, herps, mammals and fossils amassed by Suttkus and students in the Environmental Biology Training Program, were moved to a 500 acre parcel of land on the Mississippi River near Belle Chasse, LA, which Tulane had acquired from the U.S. Navy. The land, which had served as an ammunition storage depot during WWII, eventually became the F. Edward Hebert "Riverside" Research Laboratories. The collections became part of what was initially called the Systematics and Environmental Biology Laboratory. In 1976, Suttkus convinced the Tulane administration to formally recognize the collections at Riverside as the Tulane University Museum of Natural History, and to appoint him as the Museum's first Director.

In the years since the move to Riverside, the fish collection has grown to over 200,000 lots and more than seven million specimens (7,369,607 at this writing). Over a career spanning 45 years at Tulane, Suttkus made 12,060 collections. Remarkably, he

had a hand in collecting 5,327,512 of the specimens in the fish collection. In addition to fishes, Suttkus collected over 5,000 mammals, 6,000 amphibians and reptiles, roughly 6,000 vascular plants (now in the Tulane Herbarium), and numerous aquatic mollusks, crustaceans, and fossils. Other biologists are now making valuable use of all of these specimens. One measure of this is the number of species that have been named in Suttkus's honor (six fishes, two decapods and one fossil oyster). Based on past and ongoing use of material from the Tulane fish collection, it is clear that Suttkus's collections will teach us much about taxonomy, distribution, and many other aspects of the biology of species he collected for many years to come.

In 1989, in anticipation of Suttkus's retirement, the Tulane Administration brought in a team of external reviewers to evaluate collections in the Museum and to make recommendations on their continued maintenance by Tulane. In their report to the administration, the reviewers described the fish collection as "a treasure of great national and international importance" and strongly recommended maintenance of the fish collection at Tulane. Suttkus officially retired from Tulane University in 1990. However, he continued to credit the university and the museum of natural history on papers published since this time.

Figure 3. A photo of Suttkus from the fall of 2000 in the fish collection that would soon be named in his honor.

In fall 2000, a jubilee celebration was held in New Orleans to honor Suttkus's 50 years of service to Tulane University and his contributions to southeastern biology (Fig. 3, http://www.museum.tulane.edu/sutjubilee/). The event was attended by most of his family, former students, and his closest professional colleagues and associates. A symposium was held in his honor, featuring talks on Suttkus's contributions to mammalogy, botany, malacology, invertebrate paleontology, training in all of biology, and, of course, ichthyology. Colleague, Dave Etnier, gave a talk entitled *Collecting caddisflies: how much is enough?* during which he introduced the term "*Suttkusian*" to describe the large collecting efforts that are required to collect sufficient numbers of male caddisflies needed for species descriptions. Colleague, Franklin "Buck" Snelson, wrote a song entitled "*Collecting Machine*", which was played with a special slide show at the Jubilee. The song and slide presentation can be viewed at http://www.museum.tulane.edu/sutjubilee/suttsong.html.

During a special closing ceremony held under a tent beside the fish collection, the Dean of Arts and Sciences read a proclamation from the President, Faculty and Administrators of Tulane University, officially renaming the Tulane Fish Collection, the

Royal D. Suttkus Fish Collection, and granting Suttkus the title of Emeritus Curator of Fishes.

Suttkus continued collecting and depositing specimens in the fish collection until Hurricane Katrina devastated the Gulf Coast in August 2005. The high winds and storm surge from the hurricane flooded and badly damaged Suttkus's home near the beach in Ocean Springs, Mississippi. He lost nearly all of his possessions, including his field notes and most of his library. What little remains is now part of the Royal D. Suttkus Fish Collection.

After the hurricane, Suttkus and Jeanne moved to an apartment in the Atlanta suburbs, where Suttkus continued to publish his research. In recent years, he had been publishing taxonomic treatments on *Menidia,* suckers of subfamily Ictiobinae, and species descriptions, including papers based on his dissertation research on *Pteronotropis.* He also had been battling prostate cancer. He died peacefully, surrounded by family. He is survived by his wife Jeanne, son Jayson, daughters Ramona and Jan and their families, Brother Hazen and numerous extended family members.

Tulane University is in the process of divesting itself of all of its natural history collections, except the Royal D. Suttkus Fish Collection and the Tulane Herbarium. The other collections are being donated to other institutions, but most will remain in the southeast region. The vertebrate collections (mammals, birds, reptiles, amphibians and vertebrate fossils) are being transferred to the Louisiana State University Museum of Natural Science. The invertebrate collections (decapods crustaceans and mollusks) are being transferred to the Mississippi Museum of Natural Science. Suttkus's plants were either incorporated into the Tulane University Herbarium, or distributed to other herbaria (duplicates) following tradition in botanical collections. The Royal D. Suttkus Fish Collection will remain at Tulane for the foreseeable future, where it will form the core of a new research facility – the Tulane University Biodiversity Research Institute (TUBRI).